Battletech to *GURPS* Conversion Notes, V2.0

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Rambling Introduction

This is a major revision to a set of Battletech to **GURPS** rules I first wrote in '92 or '92. When I noticed them mentioned in a **GURPS** FAQ, I realized that they badly needed to be reworked. A great deal of the rules have been expanded or changed (the biggest was changing the abstract combat option to use **GURPS Compendium II** rules rather than the long-out-of-print **GURPS Humanx**).
These rules assume the GM is familiar with both **GURPS** and BattleTech. I'll be the first to admit that these rules are a bit choppy and somewhat unorganized, but I'm currently busy with a novel, short stories and (paying) roleplaying articles. Also, I haven't played BattleTech in a while, so I'm a bit rusty with some of its rules.
Roleplayer #19 has a **GURPStech** article by Rich Ostorero (the origin of the term 'GURPStech,' I believe).
Brief Note: When I started playing BT, there was no such thing as ferro-fibrous armor, omnimechs or other technology of the Clan vs Inner Sphere struggle (I don't even think there *was* a Clan/Inner Sphere struggle in those days). Therefore, only the basics of BattleTech (plus vehicles) are covered below. My BT source is the outdated BattleTech Manual: Rules of Warfare (1987).
Note: If you run out and buy **GURPS Vehicles** and **GURPS Mecha**, you probably won't need much (if any) of what follows. These rules assume that you **won't** be designing mechs with those two books. But feel free to.
Abbreviations:
> BT: Battletech
> p.CIIxx: Page reference to **GURPS Compendium II**, page xx
> p.Bxx: Page reference to **GURPS Basic Set**, 3rd Ed Revised, page xx

The Battlemech

While the conversion list for the 'Mech may seem long, note that it covers *all* combat options (see below under <u>Combat</u>). For example, if Combat Option #4 is used, only Firepower Rating and Defense Factor are relevant.

- **Cruising Speed:** BT walk speed times 6 (in mph)
  Option: Not all 'Mechs (or vehicles) are equal. Add 2d6-7 to Cruising Speed (from -5 to +5 mph). Performance can be tweaked just like starship engines (p.S35) using Mechanic ('Mech) skill.
- **Maximum Speed:** cruising speed times 1.5
- **Jump Distance:** 30 yards per jump number
- **Passive Defense:** 1 point per 2.5% of mass devoted to armor (maximum PD 8)
- **Damage Resistance:** BT armor value times 100
- **Internal Component DR:** 20-50
- **Internal Component HT:** tonnage * 300 (x0.5 for gyroscope and fusion plant, x0.1 for cockpit)
- **Dodge:** one half of Driving ('Mech) (but no greater than BT cruising speed)
- **Firepower Rating (FR)**: maximum BT damage the 'Mech can deal in one BattleTech round (assume every missile in a volley hits). If the heat generated is greater than the number of heatsinks, subtract the difference from the Firepower Rating. Do not count physical attacks (punching, etc.).
- **Defense Factor (DF):** (PD+Dodge)/4, minus 1 (minimum 0.1)
- **Weapon Ranges:**
  - *1/2 Damage:* upper medium times 100
  - *Maximum:* upper long times 300
  - *Option:* Double 1/2 Damage range for tracked, wheeled and naval units, as they are a more stable firing platform than a 'mech, VTOL or hovercraft.
- **Weapon Accuracy:**
  - 8-12 for MG and ACs
  - 15-20 for lasers/PPC
  - 6-8 for LRM and flamers
  - 4-6 SRM

  All 'Mechs and vehicles come with a Fire Control Computer. Divide the target's range/speed (before finding the modifer) by the FCC rating (eg, /2). For simplicity, assume all 'mechs and vehicles have a /4 primary system and a /2 backup system.

- **Weapon ROF: (suggested)**

- o MG: 8-20
- o AC: 1-8
- o Lasers: 4-12
- o PPC/Flamer: 1
- o LRM/SRM: as in BT
- **Weapon Damage:** 6d x (20 x BT damage), halved for ACs and MGs
  Note #1: For some weapons (especially the MG), this is really a simplification of automatic fire rules. If the damage of an individual round is desired, divide the total damage by the weapon's ROF (GM's decision) and increase the result by 20%. Heat is generated per full ROF burst, not per individual round.
  Note #2: For simplicity, use BT damage and armor values when 'Mechs are slugging it out, and convert to GURPS damage as needed (eg, pilot injury).
  Note #3: Like other non-living objects, impailing and cutting weapons get no bonus against 'Mechs or vehicles. Also, bullet and beam weapons (anything but missiles and bombs) do only 1/10 damage to internal components. Missiles and bombs do normal damage. (This may seem generous, but, for example, an AC/5 with ROF 4 does 400 points of damage (per shell) on an average hit.) Missiles are assumed to be shaped charge; ACs and MGs use APFSDS (or some alphabetic derivative) which gives a (3) armor divisor.
- **Troop Strength (TS):** For a *really* simple system, use the mass combat rules in **Compendium II**. A very rough estimation of 'mech TS would be (tonnage/2).

Battletech Vehicles

GURPS Vehicles use the same rules, except as follows:
- Top Armor (turret present): DR = front armor
- Top Armor (no turret): DR = side armor
- Underside Armor: DR = rear armor
- PD is halved.
- Dodge is halved for hovercraft and quartered for tracked/wheeled and naval units.

Sample 'Mech Conversion

(This uses the ubiquitous Merlin from the Rules of War construction example.)

Merlin, 60 tons

- **Cruising/Max Speed:** 24/36 mph (the optional speed modifier was not used)
- **Jump Distance:** 120 yards
- **PD:** 6 (10 tons/ 60 tons = 16%, 16/2.5 = 6)
- **DR:** ? (armor wasn't allocated in the rulebook, but front torso DR is probably in the 3000-3500 range)
- **Dodge:** 6 (assumes a Driving skill of 12+)
- **HT values:**
  - Internal Structure: 1800
  - Cockpit: 900
  - Jump Jets (4): 300 (each)
  - Weapons: varies
  - Fusion Plant: 3450
  - Gyroscope: 900
  - Heat Sinks (9): 300 (each)
- **FR:** 26 (+29 for weapons, -3 for excess heat)
- **DF:** 2
- **TS:** 30

Weapon	Acc	Dam	1/2D	Max	ROF	Ammo
PPC	15	6dx200	1200	5400	1	n/a
Med Lasers (2)	20	6dx38	600	2700	4	n/a
MG	12	6dx5	200	900	10	2000 (200 bursts)
Flamer	6	6dx50	200	900	1	n/a
LRM-5	8	6dx25(10)	1400	6300	5	120 (24 salvos)

NOTE: Yes, you could convert the mechs (or design new ones from scratch) using **GURPS Vehicles** and **GURPS Mecha**. However, such a move may turn off BattleTech veterans. Also, it takes more than a few minutes to crank out new designs with **GURPS Vehicles/Mecha**...

The Mechwarrior

Skills

Driving ('Mech):

As per normal driving, but uses the same high IQ bonus as Guns. LAMs also require Piloting (LAM).

Tactics ('Mech):

Required if the character expects to survive for long; see Battle skill below. Defaults to normal Tactics at -2.

Strategy:

There is no 'battlemech' specialization; use Land.

Gunner:

GURPStech specializations are machine guns, autocannons, lasers, missiles, PPCs and flamers.

Shortsword ('Mech):

This applies to any balanced melee weapon used by the 'Mech. It defaults to Shortsword-3.

Axe/Mace ('Mech):

This applies to any unbalanced melee weapon used by the 'Mech. It defaults to Axe/Mace-3.

Battle Skill:

This is an overall evaluation of a 'Mech pilot's combat effectiveness. It is the average of Driving (Mech), Tactics (Mech) and applicable weapon skills. Since most 'Mechs require 2-4 Gunner specialities, determining Battle skill for **GURPStech** can get a little complicated. There are several solutions for determining the pilot's effective Gunner skill (for purposes of calculating Battle skill only):

1. straight average of all Gunner skills applicable to the 'Mech
2. the pilot's best Gunnery skill applicable to the 'Mech
3. a weighted average based on the number of each weapon type (my preference, but I was a math major...)
4. a weighted average based on weapon tonnage
5. a weighted average based on weapon (critical) spaces

Injury

Whenever a mechwarrior would take damage under BT rules (high heat, head hit, etc) apply 1d6 damage (and 1d6-3 fatigue if the cause is heat) per point of BT damage (this does *not* apply to wounds from weapon fire).

Combat

There are several ways to run battles in **GURPStech**. Option #1 is useful if most players are BattleTech veterans but new to **GURPS**. Option #3 is best for veteran **GURPS** players who prefer the

advanced combat system. Option #2 is a compromise, and is best suited for campaigns with more roleplayers than wargamers (#2 is what I normally use). Option #4 is handy for large-scale combats. Option #5 uses the **GURPS** mass combat system.

1. BattleTech variant (10 second rounds)

Run the combat according to BT rules, but use 3d6 **GURPS** skill rolls rather than BT 2d6 Piloting/Gunnery rolls. Use BT rather than **GURPS** modifers, but double them (ie, a -3 becomes a -6). Also remember that in BT, modifers are opposite from **GURPS:** a '+' is bad, a '-' is good. Apply a +6 at short range, a +2 at medium range and a -2 at long range for to-hit modifiers.

On a **GURPS** Gunnery critical hit, roll on the BT Critical Hit Table, even if armor remains on the location. (This is adapted from R. Ostorero's rules in Roleplayer #19.)

2. BattleTech-style combat (10 second rounds, no map)

    a. Roll a Contest of Skills using each mechwarrior's Battle skill, using any appropriate modifiers for surprise, terrain, unusual tactics (see p.S92).

    b. The winner may fire first with no Accuracy or Targeting Computer bonuses, or last with them. The loser gets no Accuracy or Computer bonuses.

    c. Handle the rest as per option #1, above, though the GM should use any **GURPS** rules he feels appropriate (the BT hit location tables, **GURPS** ranged weapon chart, etc.). However, even though the round is 10 seconds long, the mechwarriors (re)act as if it were a 1 second **GURPS** round with regards to attack and defense options.

3. GURPS-style combat (1 second rounds, mapped)

Treat 'Mechs as very large people (not entirely realistic, but neither are battlemechs...). 'Mechs are big targets, but get no bonus to hit other 'Mechs and vehicles -- that's what their targeting systems are optimized for (hitting a lone infantryman, however, is -4).

GURPS Vehicles will also be of **great** help.

Also, note that BT armor is ablative. Any shot that hits (even if the damage is less than the DR), reduces the 'Mech's DR by (damage rolled/10).

4. Abstract combat (based on GURPS Compendium II, using the *starship* rules)

Use the following changes and additions:

- **Contest of Tactics:** The average Dodge score of each side is applied as a modifier.
- **Survival:** Use the pilot's Battle Skill, not HT, for these rolls. The degree of damage and Combat Reflexes both

modify this roll. Replace the ship size modifiers with the 'Mech size modifers below:

- o infantry: -6
- o battlesuits: -4
- o 10-30 tons: -2
- o 35-65 tons: 0
- o 70-100 tons: +2
- o jumpship: +4

Sample 'Mech Damage Tables

These are mainly for the Abstract Combat option (#4 above), but can also be used in other situations.

Light Damage

3d6 Roll	Results
3-4	cargo area rattled
5	no damage
6	ammo supply of one weapon destroyed
7-8	one weapon rattled: 1/2 Firepower (or Malf 15 and Acc 0)
9-10	mech rattled: all rolls at -1 for rest of battle
11-12	gyro rattled: -1 to Dodge next round
13	cockpit rattled: -2 to rolls for rest of battle, *
14-15	leg actuator damaged: -1 Dodge, -1d6 mph cruising speed
16	arm actuator damaged: -1 Firepower of weapons in/on arm
17-18	engine rattled: -10% speed

Medium Damage

3d6 Roll	Results
3-4	cargo area damaged
5-6	jump jet destroyed: -30 yards to jump range
7	ammo for one weapon explodes, *
8	weapon destroyed
9-10	mech rattled: as above, but -4
11-12	gyro damaged: -1 Dodge until repaired (if reduced to 0,a roll is required each Combat round to avoid falling)

13	cockpit damaged: as above, but -4, *
14	heat sink knocked out: -2 to Firepower
15	leg actuator damaged: 50% speed, -1 Dodge
16	arm actuator damaged: any weapons in arm cannot be used,nor can the arm
17-18	engine damaged: reduce speed by 25%, roll 12- each round to avoid engine shutdown

Heavy Damage

Roll	Results
3-4	cargo area destroyed
5-7	weapon destroyed, *
8-9	gyro destroyed, *, @
10-12	engine destroyed, **, @
13	cockpit destroyed, **, **
14	computer destroyed: all rolls at -8, *
15	leg destroyed, *, @
16	arm destroyed
17-18	mech explodes, **, **, **

 *, ** See p.CII104 for explanation. @ = 'Mech immediately falls over.
Mechs as cargo: Weight is as BT tonnage (while this is metric tons, and **GURPS** uses English tons, it's close enough). Volume is roughly (tonnage*35 cf) which includes all subassemblies (see **GURPS Vehicles**), though non-humanoid 'Mechs are usually less. This includes waste space, so reduce volume by 25-35% if the 'Mech is carried strictly as cargo (and not to be deployed from its bay).
Mechs vs Starships: A 'Mech gets a +1 to its DF for size, but is at a -4 in the Contest of Tactics (-2 if a LAM) due to lack of maneuverbility.

Shooting at Infantry

As noted above, 'Mechs are -4 to-hit people. However, it doesn't take much to kill an infantryman. A critical hit or a hit made by 10+ is a direct hit; remove the smoking boots from play. Any other hit places the round (or ray, or missile) 1d6 yards away per 100 yards distance (about 3 BT hexes) from the 'Mech to the target. PPCs do only 1/10 damage. For ACs and MGs, use the strafing rules from **GURPS High**

Tech. Lasers do no damage except on a direct hit. Missiles doe 1/2 damage on a near-hit.
Infantry can shoot back, at a +4 to-hit.

Reconciling Two Systems

The most important question was: "How is Hal going to run BattleMech combat?" The solution was not a rigorous conversion of **BattleTech** to **GURPS** terms; that would have alienated the players who were unfamiliar with **GURPS**. The solution was to run 'Mech combats in the **BattleTech** manner, using the boardgame's regular distance and time factors. However, when a **BattleTech** skill roll is required to hit in combat, to stay standing after a difficult move, or for initiative in battle, a 3d roll against a **GURPS** skill or attribute replaced the **BattleTech** 2d rolls. The roll was modified per **BattleTech** for range, cover, and movement by DOUBLE the normal **BattleTech** amount. For example, an average **GURPS** mechwarrior with Gunner/9('Mech Beam Weapons) at 18 firing a particle projection cannon at a Medium range target (-2 **BattleTech**), after the firer's 'Mech ran (-2) and the target moved 4 (-1) hexes into a hex covered with light woods (-1) would have a net modifier of 2 x (-2-2-1-1) or -12 to skill, or 6 or less. This translates to about 9%. The same average **BattleTech** gunner (gunnery 4) would need to roll 4+2+2+1+1 = 10 or more; or 11.1%. *Piloting* rolls are handled the same way; use **BattleTech**, double the customary modifiers, roll 3d against skill.

Hal made other changes to the **BattleTech** system. The turn sequence and critical damage/critical failures rules from **BattleTech** were not satisfying. The Initiative roll -- used to sequence movement and combat declarations in FASA games -- was replaced by a quick Contest of Skill on each Warrior's Tactics ('Mech Combat) skill. Those who crit fail the roll move first, then those who missed move; then all non-crit successes move in order of the number by which the roll was made; then Critical Successes move. This gives good PC tacticians an advantage in battle.

To accommodate the **GURPS** Critical Success / Critical Failure concepts, the damage system required a small modification. **BattleTech** allows critical hits under only two conditions: whenever armor is penetrated, but only on a "check for crits" die roll of 8 or more on 2d; and whenever 2 on 2d is rolled for hit location, a crit to a torso is resolved. In **GURPS***tech,* any critical success on a Gunnery roll is a crit to the location where the hit lands, regardless of the armor in that location. These crits are in addition to crits for internal damage and special torso hits. The joy of a crit hit is often offset by the agony of a crit failure. On such a roll, the player rolls 3d and the GM tells the player what the 'Mech's "control panel" tells the pilot: "OK, Larson, your #2 medium laser is giving you a red idiot light after that abysmal miss on that *Warhannner* . . . " "OK, immediate action

drill to fix the laser." "Make an Armoury ('Mech weapons) roll." "Made it by two." " . . . The laser had a wire knocked loose. Your immediate action drill got it back into place. The idiot light is out. It will work next turn."

The final change concerned "consciousness rolls" for warriors who suffer damage. We use a **GURPS** Health roll. Make the roll by 2 or more, and the pilot is undamaged. If the roll is missed, the pilot can take as much as 5 dice damage.

The Human Factor

We used a 150-point starting level. This seemed justified because 'MechWarriors are the killer elite of their universe and they train for *years* before they are entrusted with a 'Mech in combat. Most players want deft, smart Warriors with good DX and IQ. ST is not important for most characters, but HT is essential; one Warrior (mine!) died when a hit by 'Mechfire forced seven Death Rolls against a 10 HT. Most characters have ST 9, DX 17, IQ 12, HT 12. The high IQ helps the Gunnery and Pilot (BattleMech) skills (Hal allows Pilot ('Mech) the same bonuses for
IQ 11 + as Gunnery skills). Basic skills for mercenaries include:
     Pilot (BattleMech) -- used for Piloting rolls
     Gunner ('Mech Beam Weapons) -- lasers and PPCs
     Gunner ('Mech Projectile Weapons) -- autocannons and MGs
     Gunner ('Mech Long Range Missiles) -- all LRM racks
     Gunner ('Mech Short-range Missiles) -- all SRM racks
     Gunner ('Mech Flamer) -- self-explanatory
     Mechanic ('Mech) -- all repairs other than weapons and armor
     Armoury ('Mech weapons) -- weapon maintenance
     Armoury ('Mech Armor) -- repair of armor damage
     Tactics ('Mech Warfare) -- used as described above
     Other useful skills:
     Guns (any)
     Beam Weapons (for hand lasers)
     Karate/Judo/Brawling
     Throwing
     First Aid
     Strategy (Land Combat)
     Leadership
     Diplomacy -- *very useful* when negotiating a contract
     Savoir-Faire -- ditto
The balance of the skill points -- from 20 to an incredible 65 -- went into "specialist" skills. Most adventuring teams in movies and TV -- the Magnificent Seven and the A-Team, for example, -- use this approach to divide the workload and the dramatic spotlight. Every character

gets a chance to be the center of attention. The PC merc company has many specialists: a super tech/engineer/computer hacker, a doctor, a "former intelligence operative," a classic FRPG "thief," a "reaction roll monster" for important social situations, a Linguist, and a out-of-'Mech combat monster who can use virtually any ranged weapon from Tech Levels 5 to 9. For those who enjoy the anonymity of a place in the ranks, a role as "Super Warrior" -- crack pilot and gunner, but little else -- is also possible.

Common advantages among the warriors in our group include the "combat" advantages such as High Pain Threshold, Combat Reflexes, and Toughness. The Out-of-'Mech gang -- those who shine most when not at the controls of a 'Mech -- likes Eidetic Memory, Charisma, and Voice. Why the latter two advantages? One member of the unit (mine!) is a diplomat with excellent social skills. He is the Reaction Roll Monster. With Voice and +3 Charisma, he is +5 to almost any reaction roll. Luck is very common because a warrior needs every edge he can get in the **BattleTech** universe.

Disadvantages include the usual mix of Mental and Social disads plus a holdover from FASA's **MechWarrior** RPG. A new character rolls 2d for his initial BattleMech in **MechWarrior**. We allow a warrior to take as a disadvantage a -1 to the 2d roll for -5 points. This is a disadvantage because a low 2d roll results in the warrior piloting a light (less capable) 'Mech, and every -1 makes a low roll more likely. Many players opted for these points as they were not counted against the -40 point disad limit. This rule resulted in a unit of lighter 'Mechs. For -40 points, a warrior may start Dispossessed -- a common situation in the **BattleTech** universe. Such characters would get a 'Mech only if the unit had any spares to loan to a Dispossessed warrior. A Dispossessed character could earn a 'Mech from the unit after surviving many campaigns -- this greatly inhibits the freedom of a Dispossessed Warrior to go somewhere else if conditions in the unit deteriorate.